Environmental crisis
Inequality


Green growth


Green growth
Ecomodernism


Green growth
Increase of Gross Domestic Product

Green growth

GDP measures the monetary value of final goods and services produced in a certain territory in a given period of time


Green growth
Ecomodernism

Reducing environmental pressures while increasing production and consumption


Is it possible?


Is it possible?
No empirical evidence.
(Hickel & Kallis, 2020)

Are there alternatives?

Yes, there are!

The commons

What is the commons?

THERE IS NO COMMONS WITHOUT COMMONING!

A commons is characterized by:

a **resource**

a **community** gathered around it

a **set of rules** to care for the resource (and community!)

The commons is…

The commons is…

…a social system by which communities co-create and co-manage resources


Pasture land (resource)
Shepherds (community)
Governance (rules)
© Dimitris Tosidis


Fish (resource)
Fishers (community)
Governance (rules)

Cooperative (type of organisation)
Workers (community)
Governance (rules)

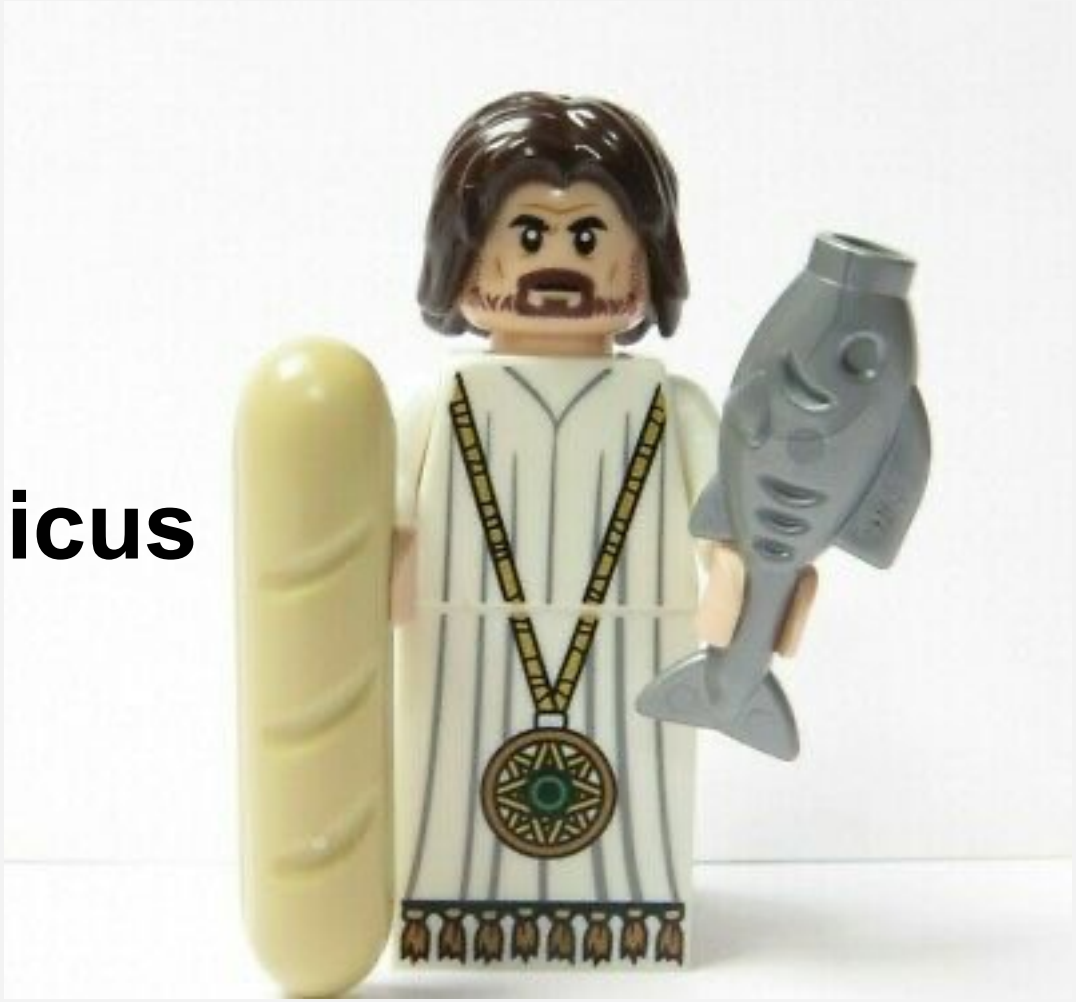

Wikipedia (resource)
Contributors (community)
Governance (rules)

Software (resource)
Contributors (community)
Governance (rules)

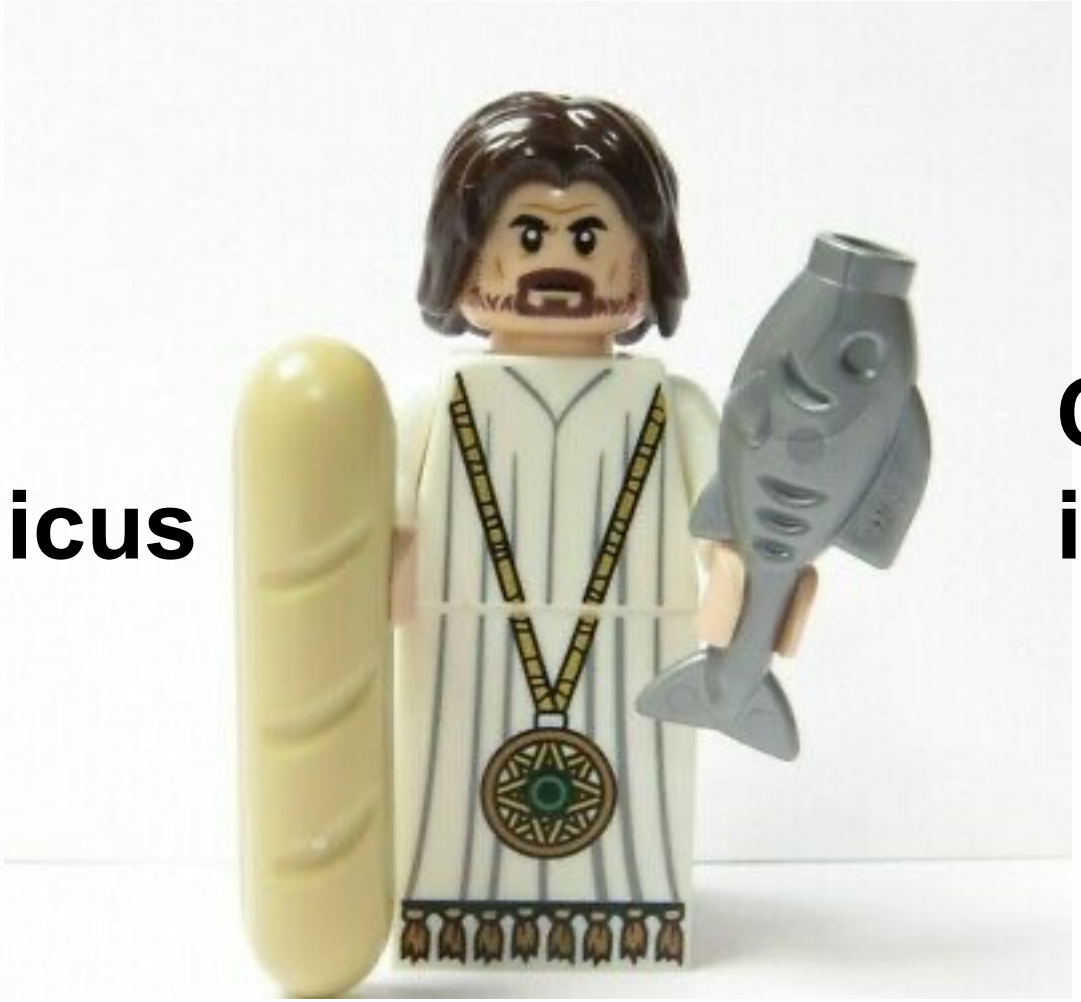
Why are the new commons important?

Real-life ways to outperform and transcend capitalism

Human =
homo economicus

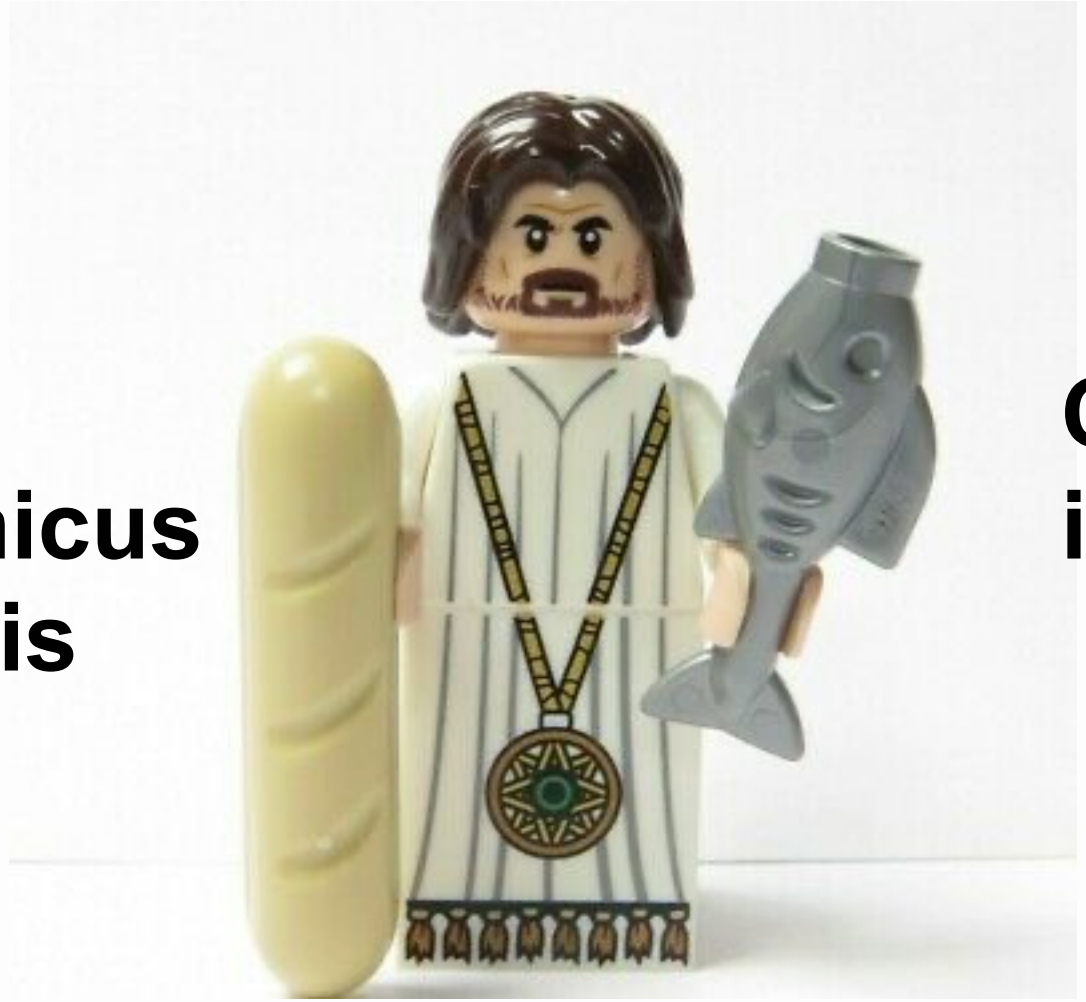


Human =
homo economicus



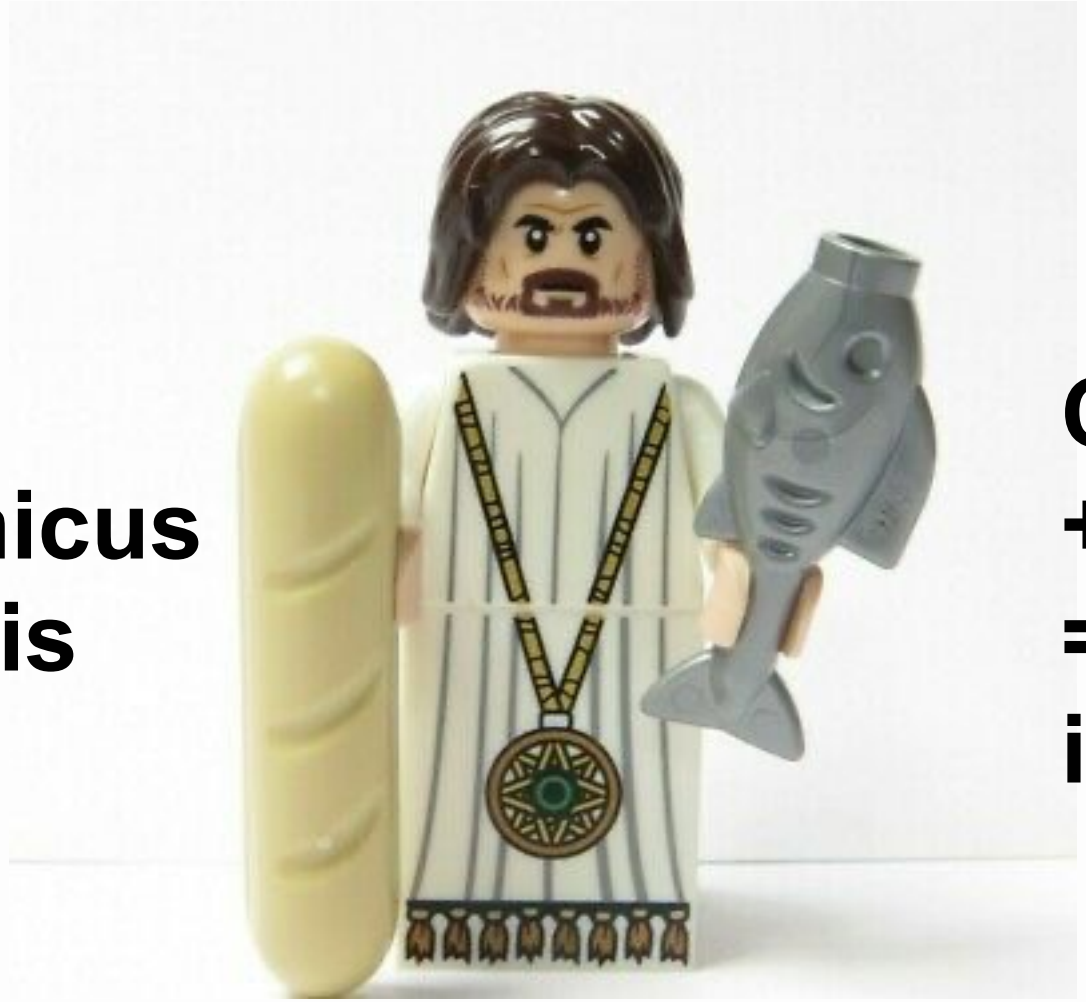
Competition =>
innovation

Human =
homo economicus
+ homo socialis

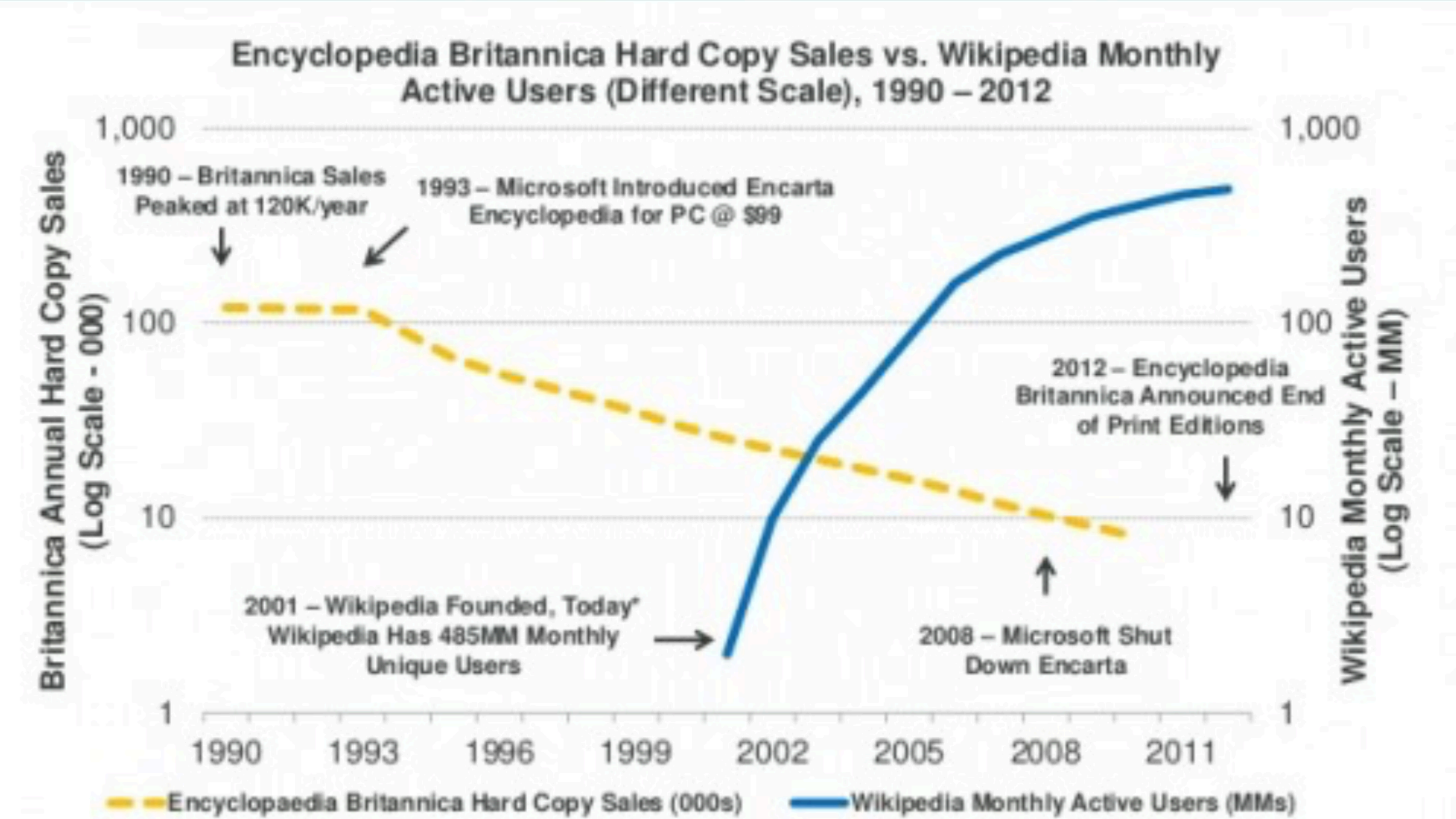


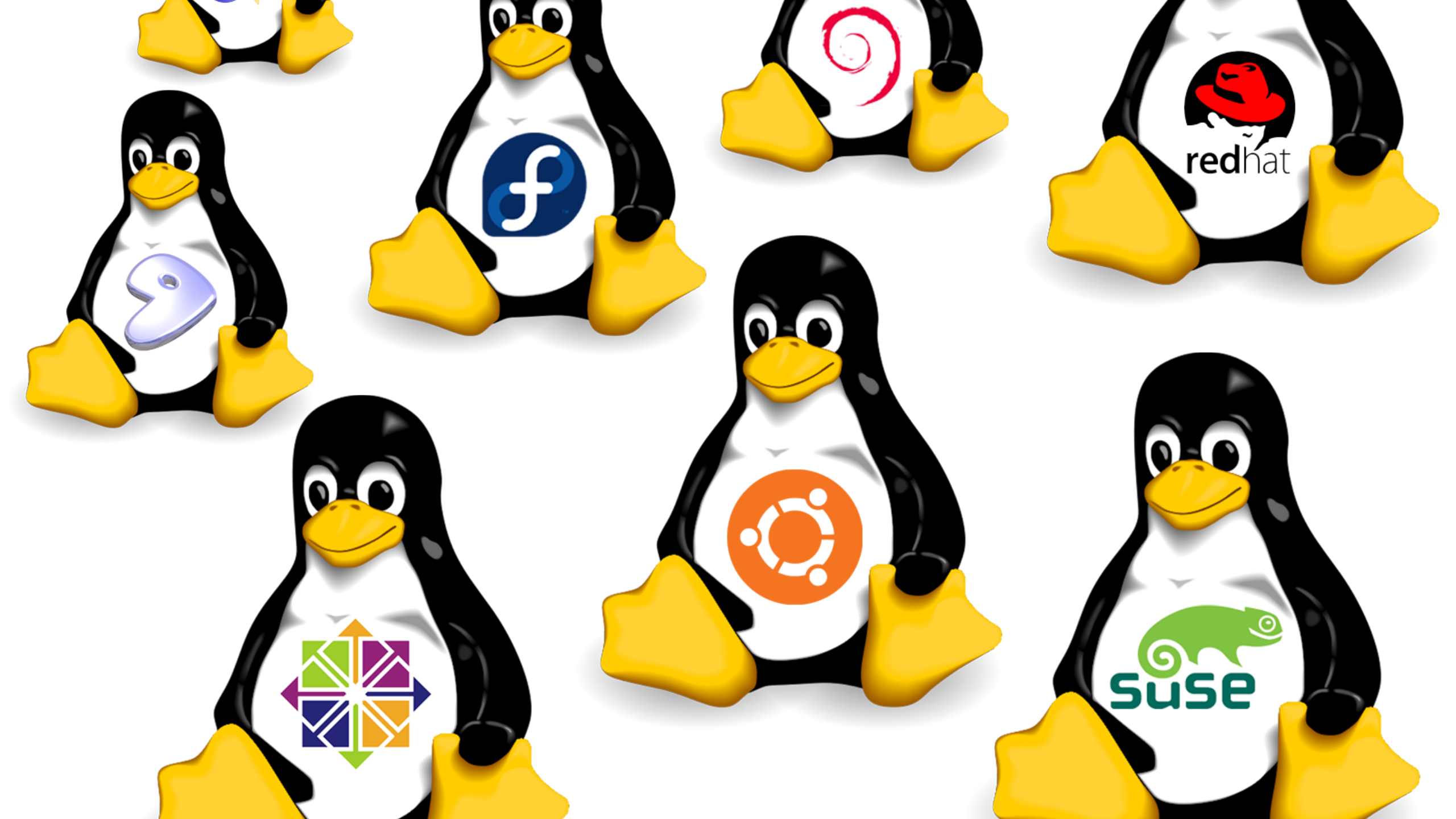
Competition =>
innovation

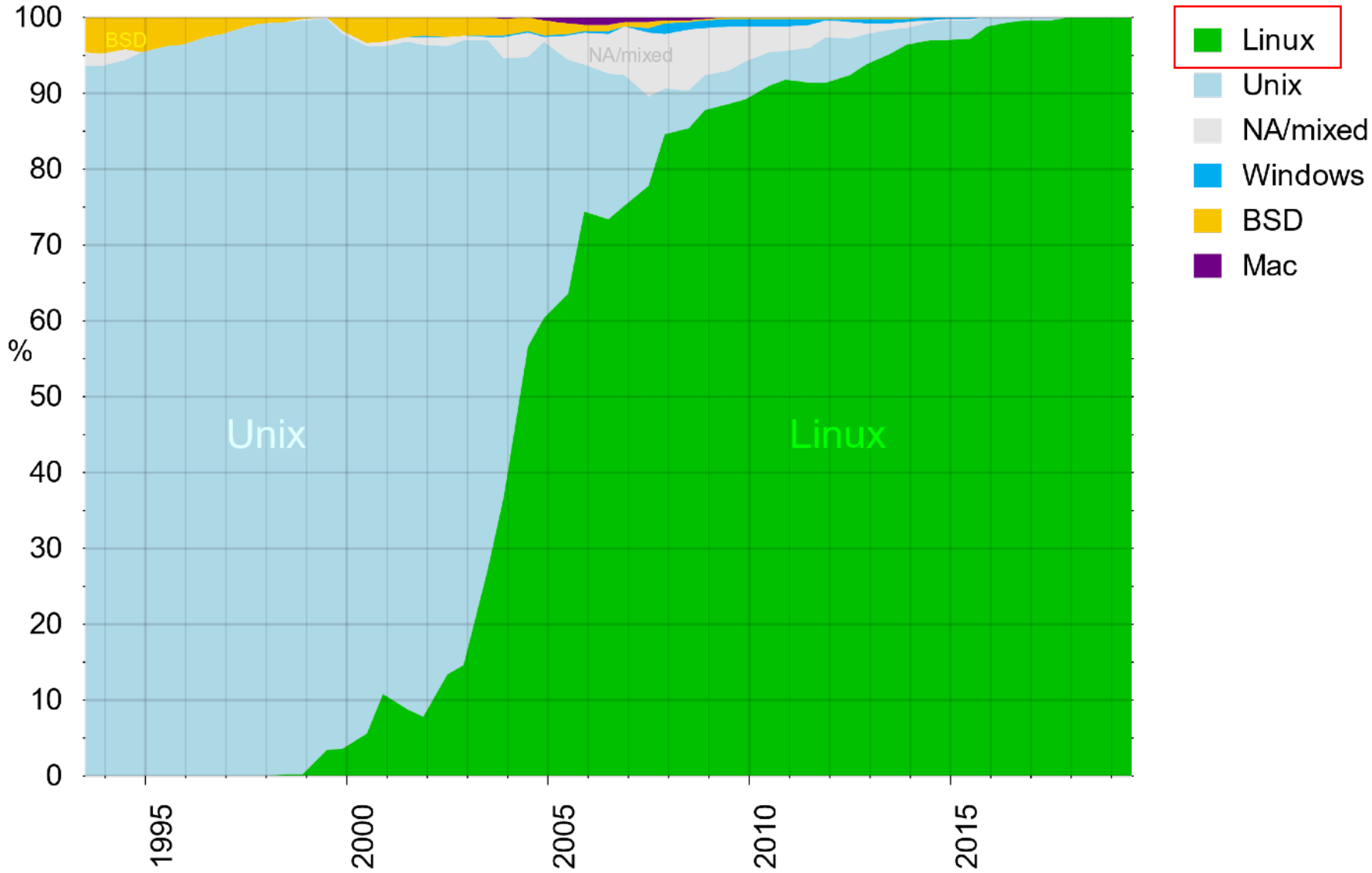
Human =
homo economicus
+ homo socialis



Competition
+ cooperation
=>
innovation


Encyclopedia Britannica Hard Copy Sales vs. Wikipedia Monthly Active Users (Different Scale), 1990 – 2012
Britannica Annual Hard Copy Sales (Log Scale - 000)
Wikipedia Monthly Active Users (Log Scale – MM)
1,000
100
10
1
1990 – Britannica Sales Peaked at 120K/year
1993 – Microsoft Introduced Encarta Encyclopedia for PC @ $99
2001 – Wikipedia Founded, Today* Wikipedia Has 485MM Monthly Unique Users
2008 – Microsoft Shut Down Encarta
2012 – Encyclopedia Britannica Announced End of Print Editions
1990
1993
1996
1999
2002
2005
2008
2011
Encyclopaedia Britannica Hard Copy Sales (000s)
Wikipedia Monthly Active Users (MMs)


redhat
suse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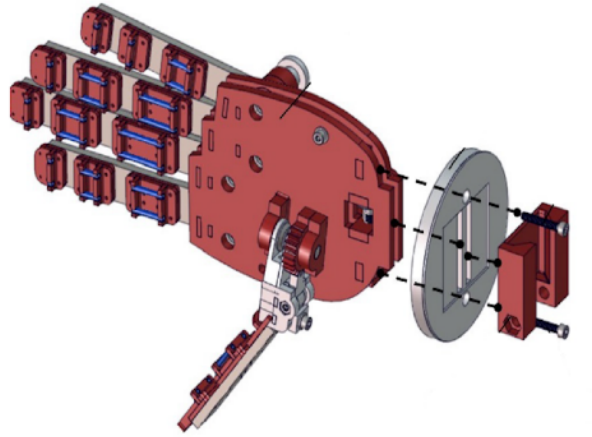
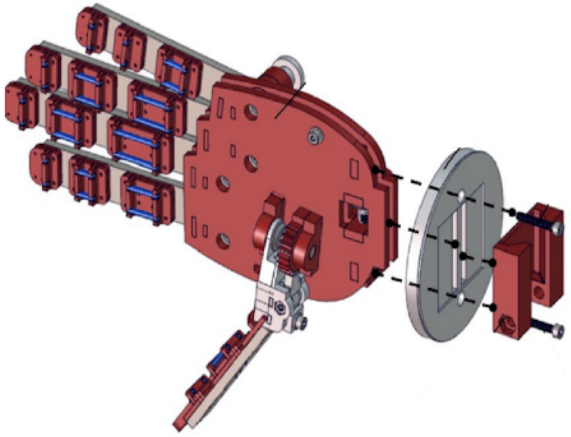
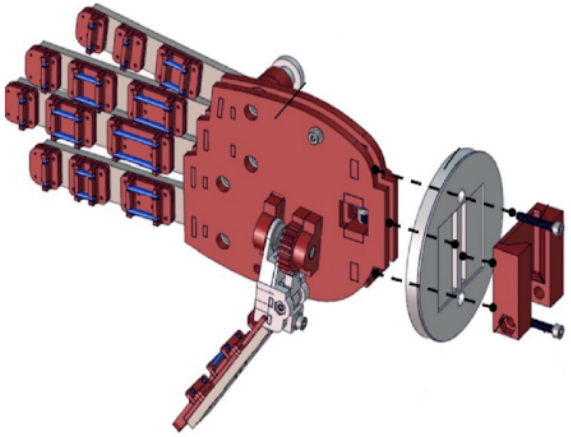
Unix
Linux
Linux
Unix
NA/mixed
Windows
BSD
Mac



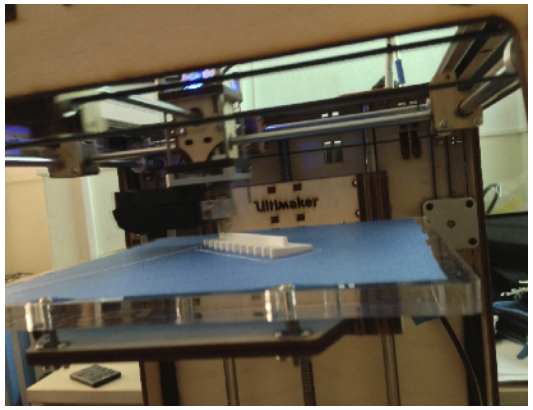
Digital commons

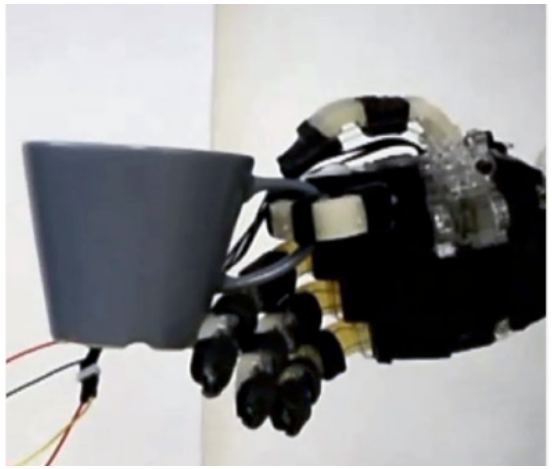


Digital commons

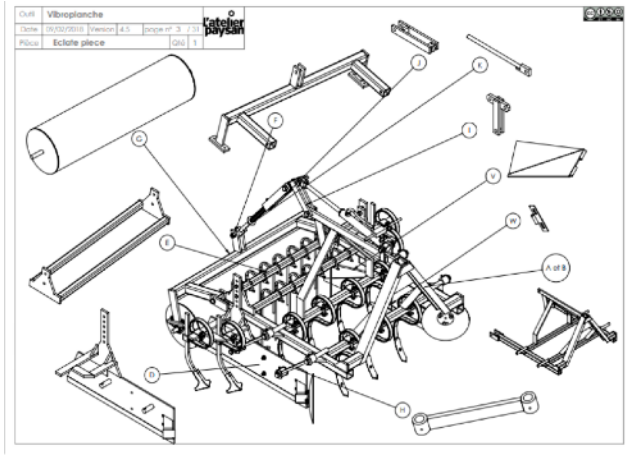


Localised manufacturing

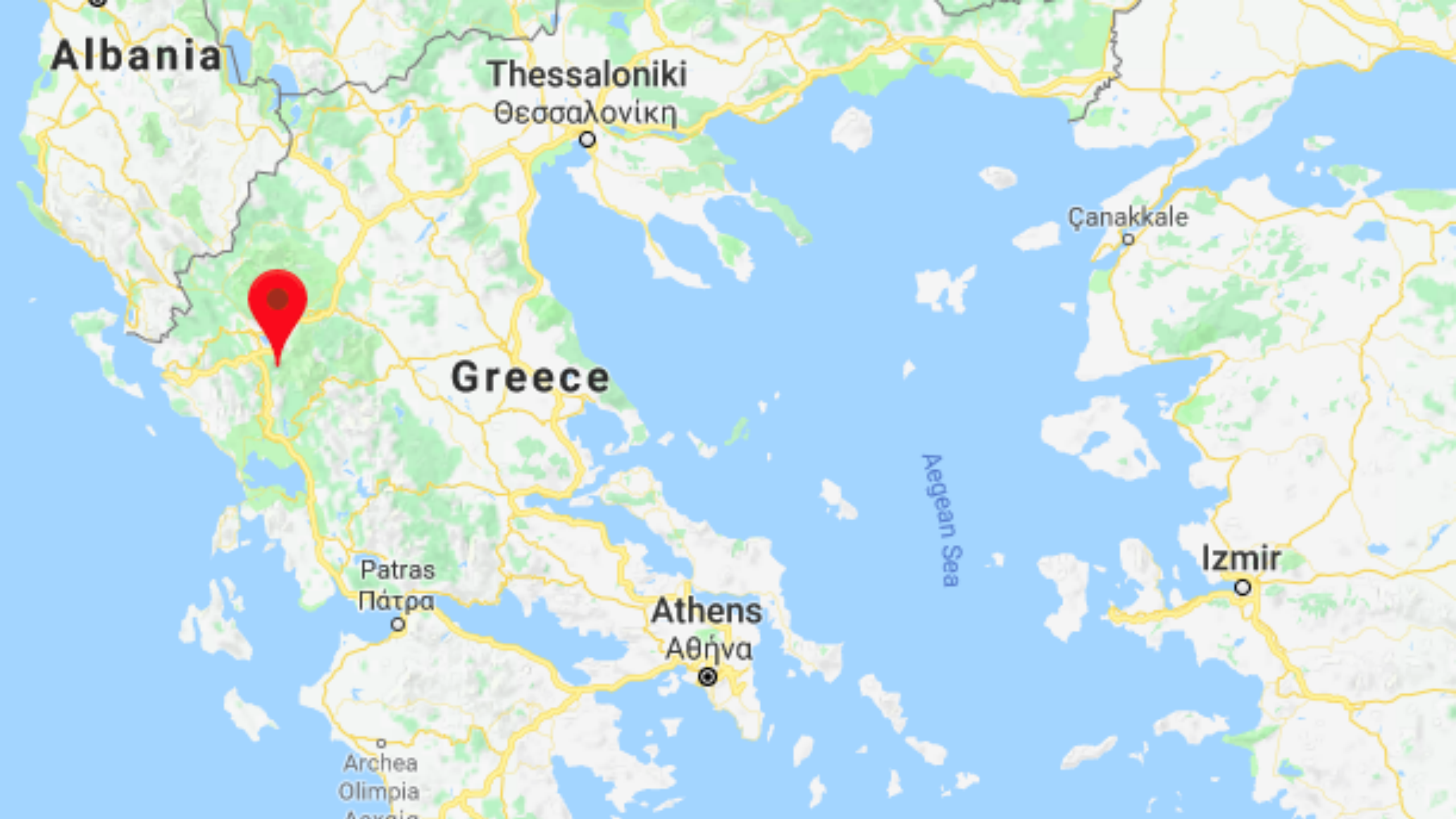




Digital commons



Localised manufacturing


Albania
Thessaloniki
Θεσσαλονίκη
Çanakkale
Greece
Aegean Sea
Izmir
Patras
Πάτρα
Athens
Αθήνα
Archea
Olimpia

Tzoumakers @ Tzoumerka, GR

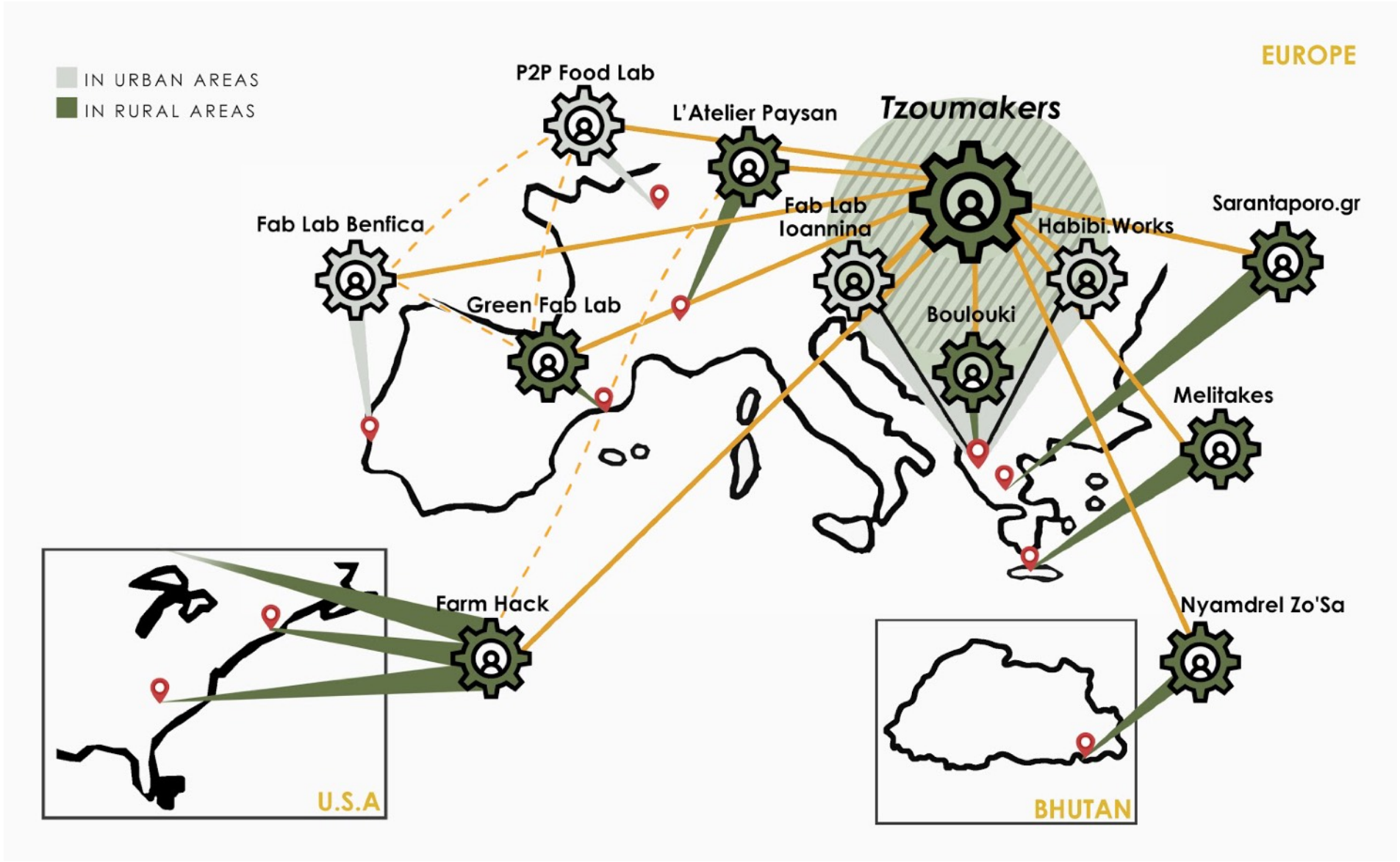

Discuss needs

Identify and customise solutions

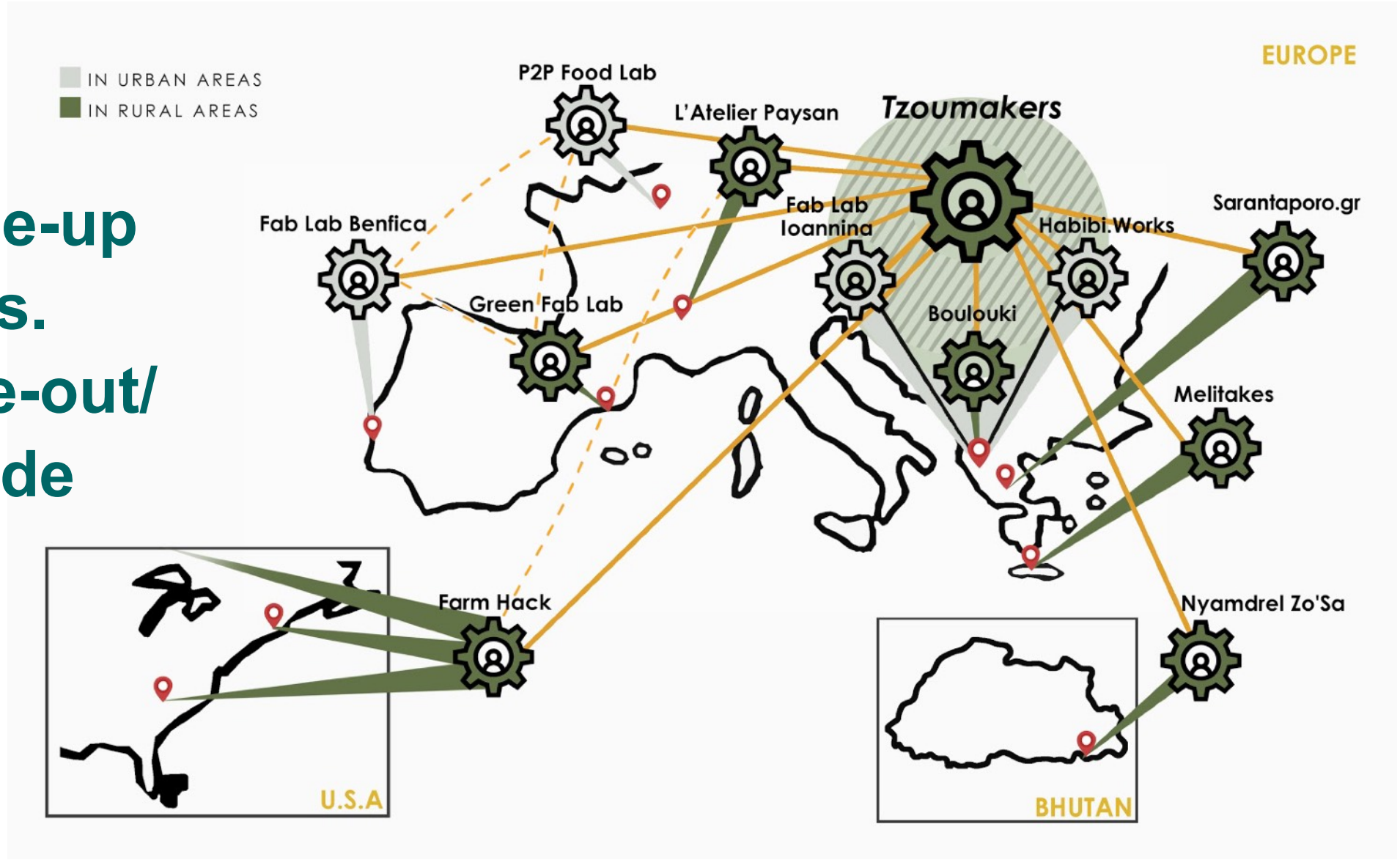
Manufacture the artifact

Manufacture the artifact

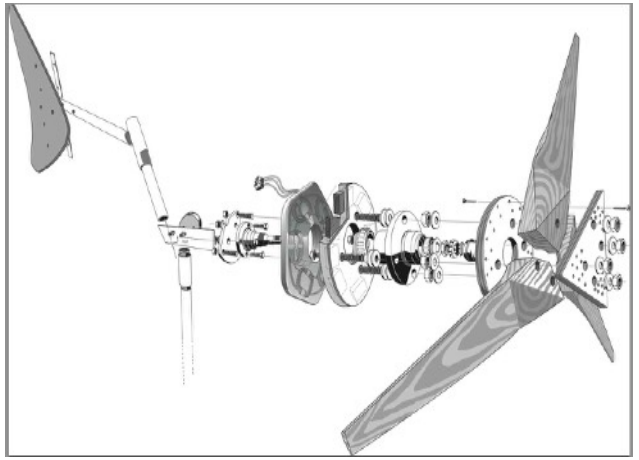
Test the artifact


IN URBAN AREAS
IN RURAL AREAS
EUROPE
P2P Food Lab
L'Atelier Paysan
Tzoumakers
Fab Lab Benfica
Fab Lab Ioannina
Habibi.Works
Sarantaporo.gr
Green Fab Lab
Boulouki
Melitakes
Farm Hack
Nyamdrel Zo'Sa
U.S.A
BHUTAN

Scale-up vs. Scale-out/ wide



Digital commons

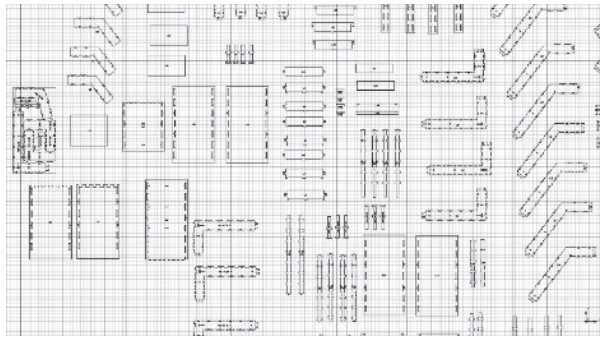


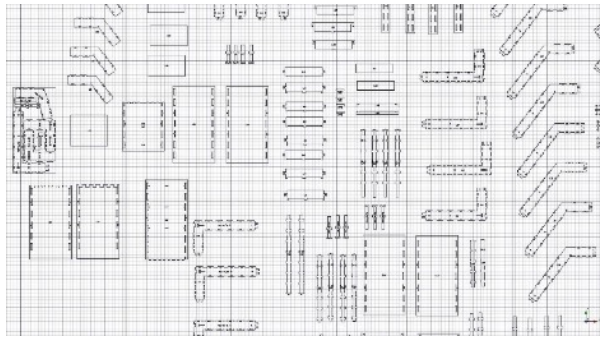
Localised manufacturing

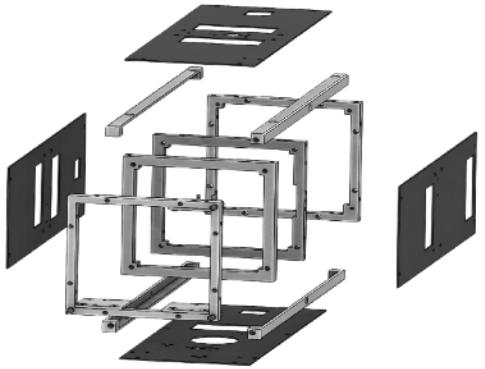

Kazakhstan
Mongolia
Uzbekistan
Kyrgyzstan
Turkey
Turkmenistan
Sea of Japan
China
South Korea
Syria
Iraq
Afghanistan
Iran
Pakistan
East China Sea
India
Saudi Arabia
Myanmar
(Burma)
Oman
Philippine Sea
Thailand
Yemen
South
China Sea
Bay of Bengal
Gulf of Aden
Arabian Sea
Vietnam
Philippines
Gulf of
Thailand
Ethiopia
Laccadive Sea
Malaysia
Somalia
Kenya

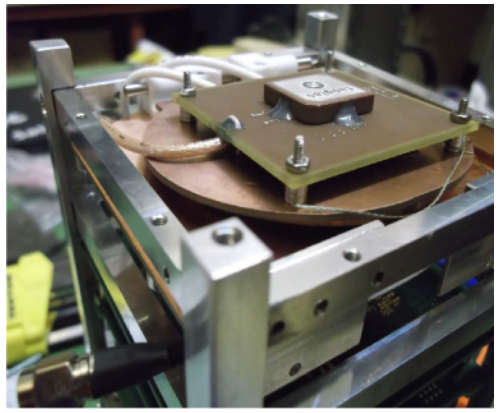

Varsity Club
LEA GUE

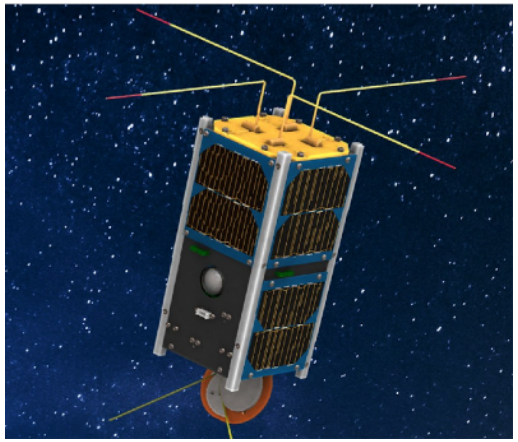

Electrical tool safety
DANGER
HIGH
VOLTAGE

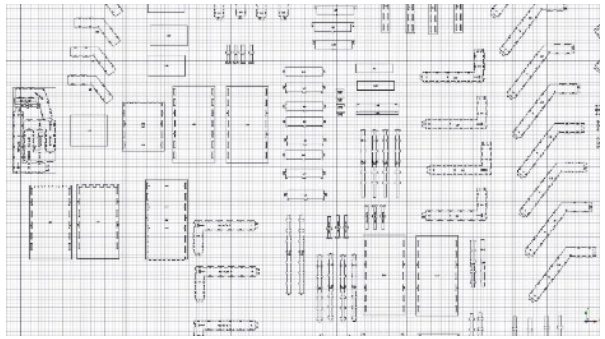


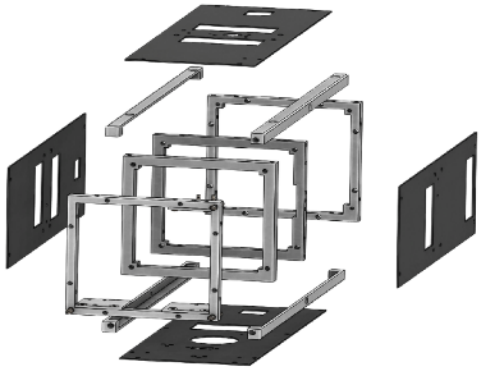


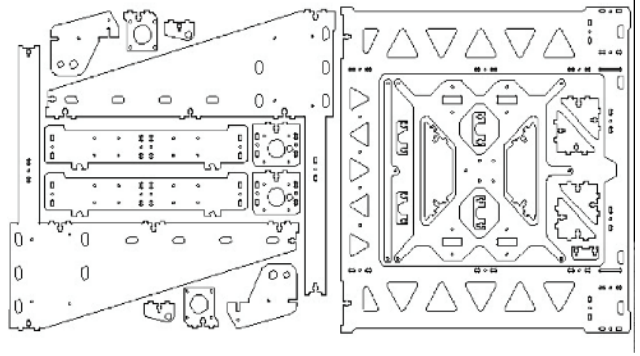


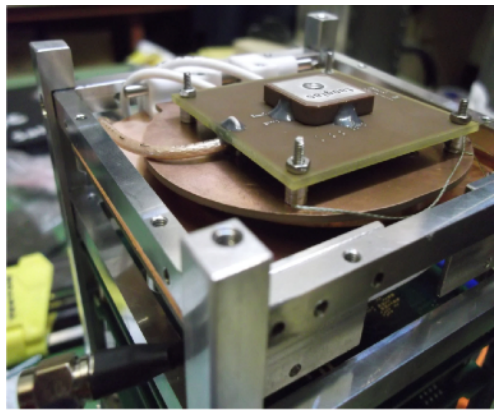


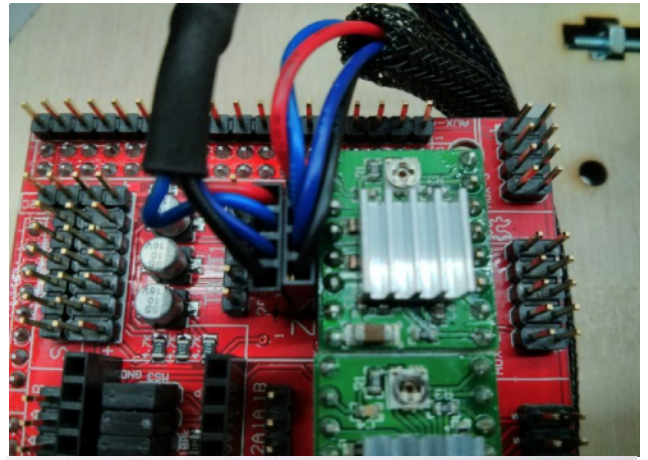


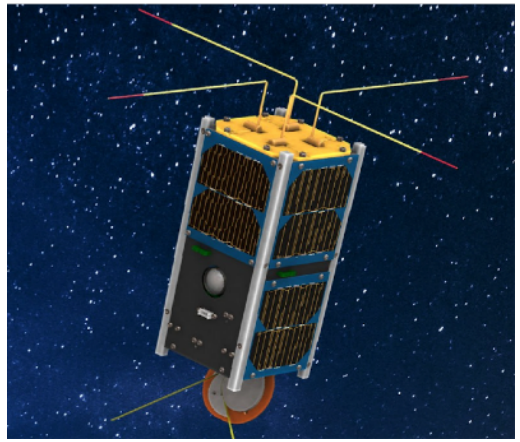


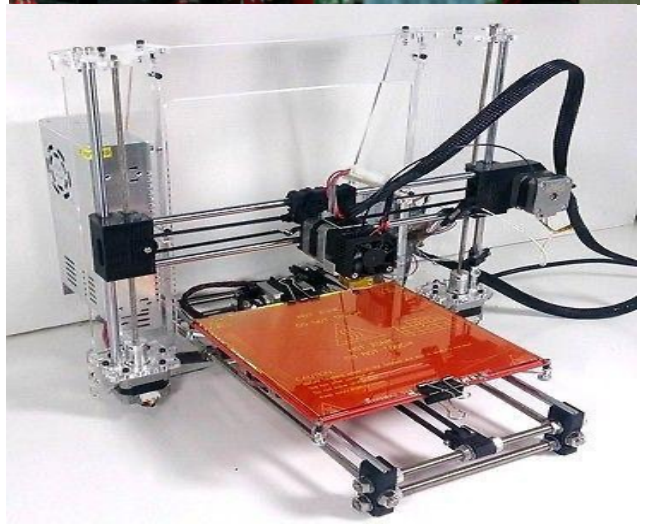






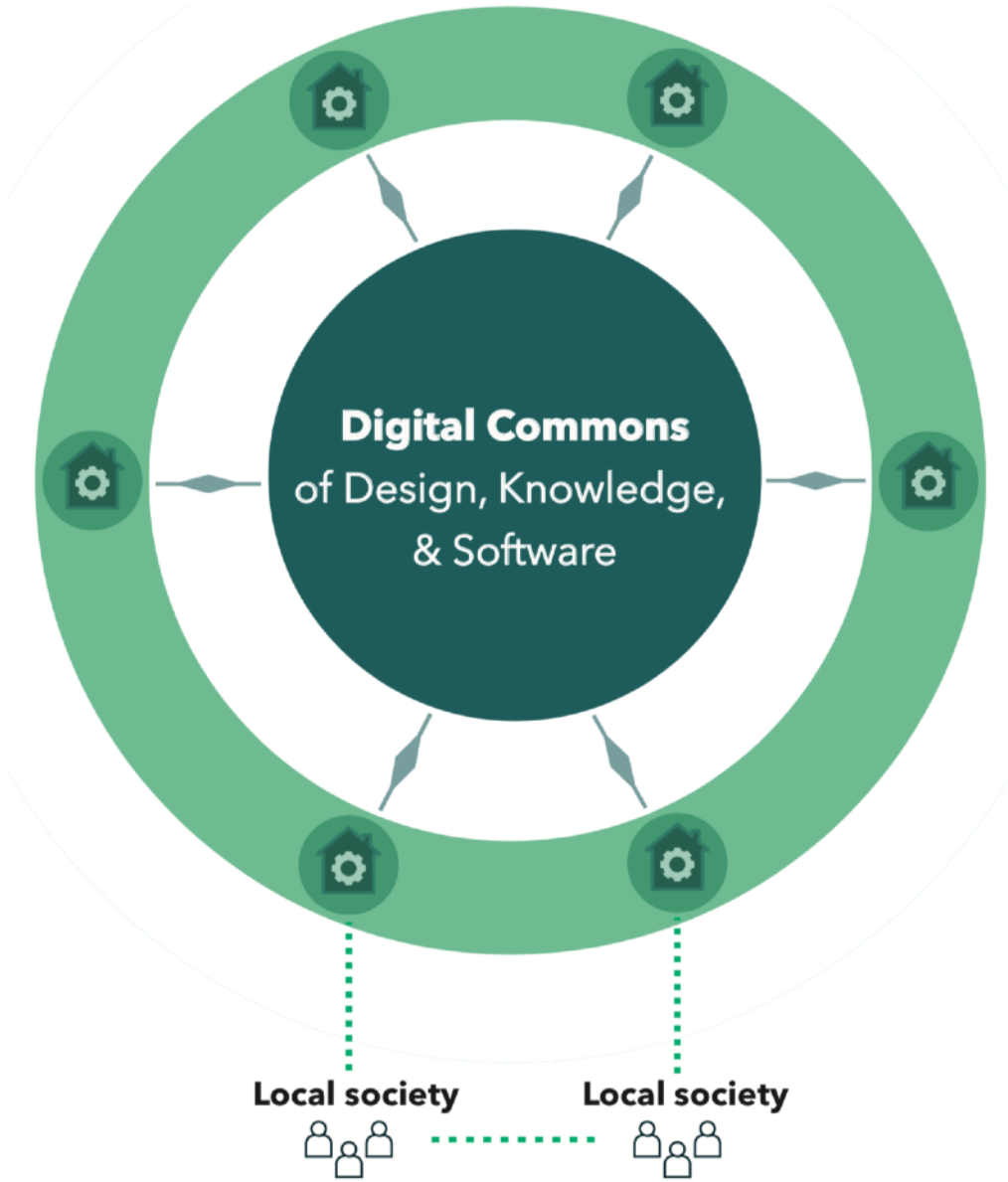




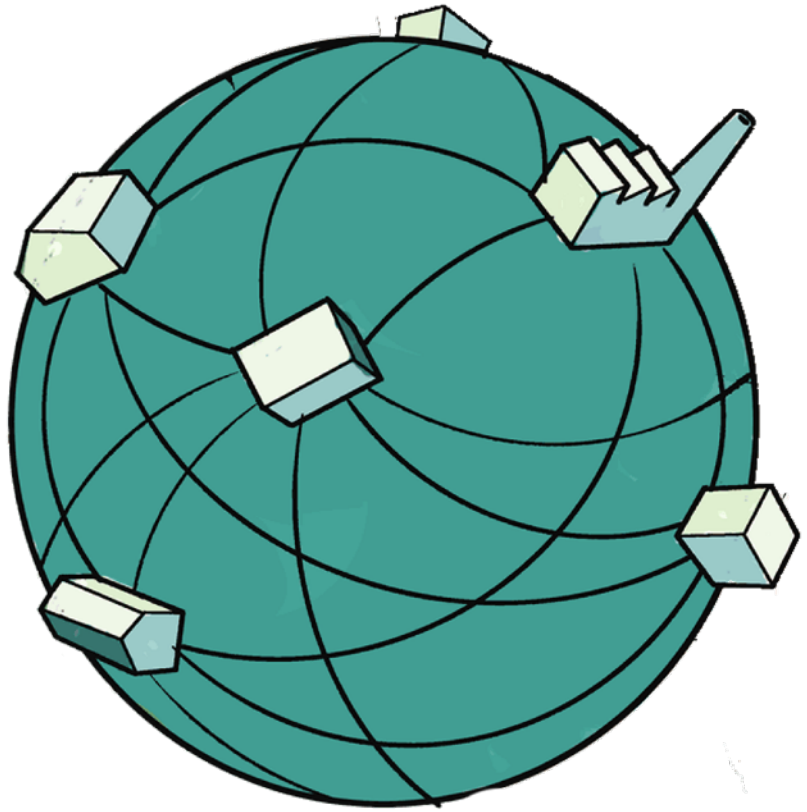



Digital Commons
of Design, Knowledge,
& Software

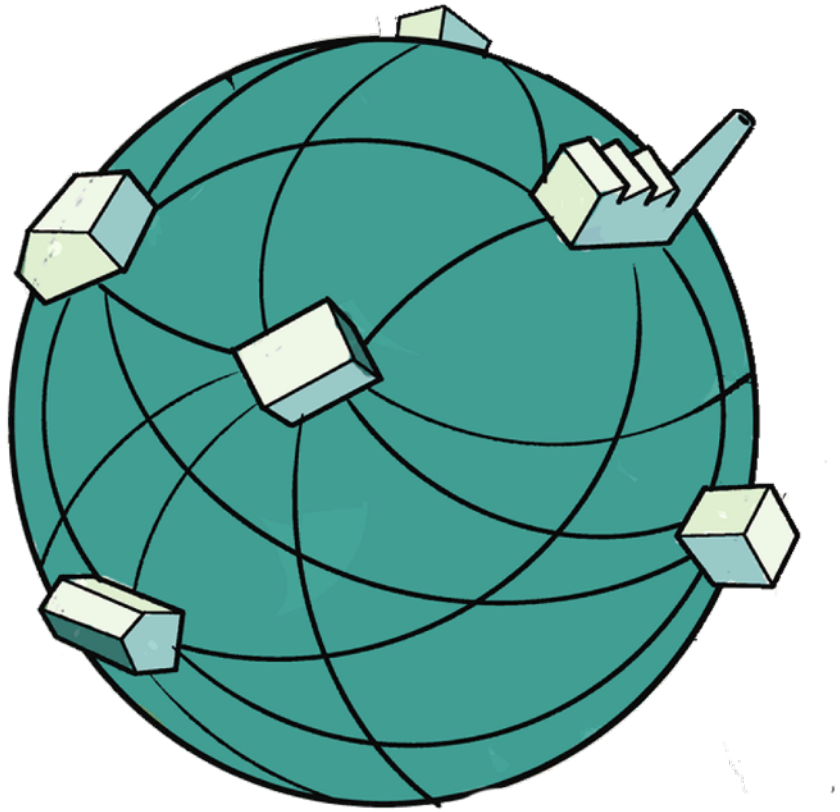

Digital Commons
of Design, Knowledge,
& Software


Digital Commons
of Design, Knowledge,
& Software
Local society
Local society

Cosmolocalism

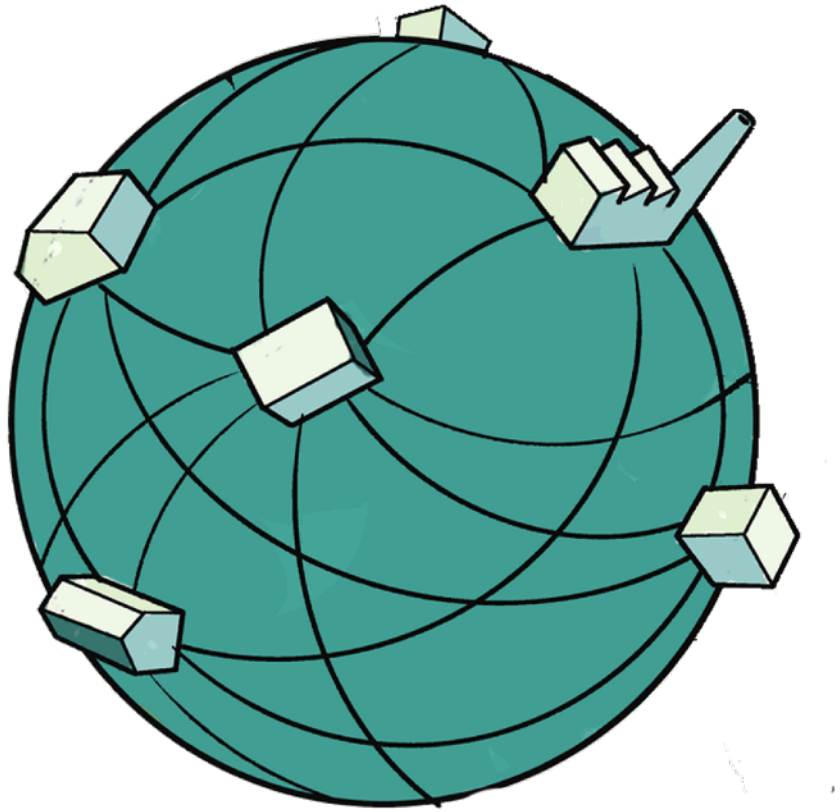


beyond global vs local

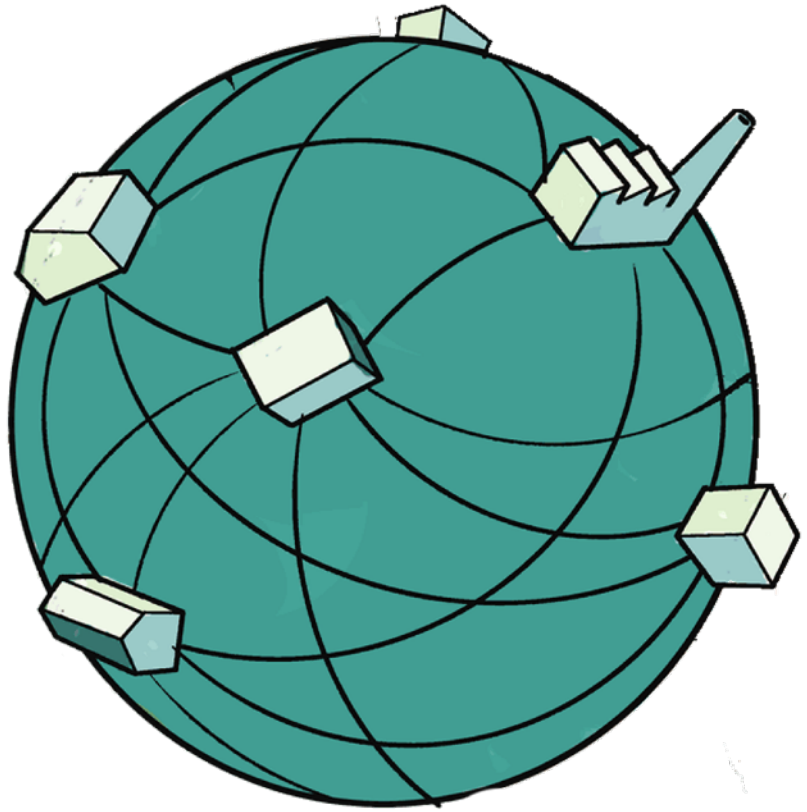


beyond global vs local

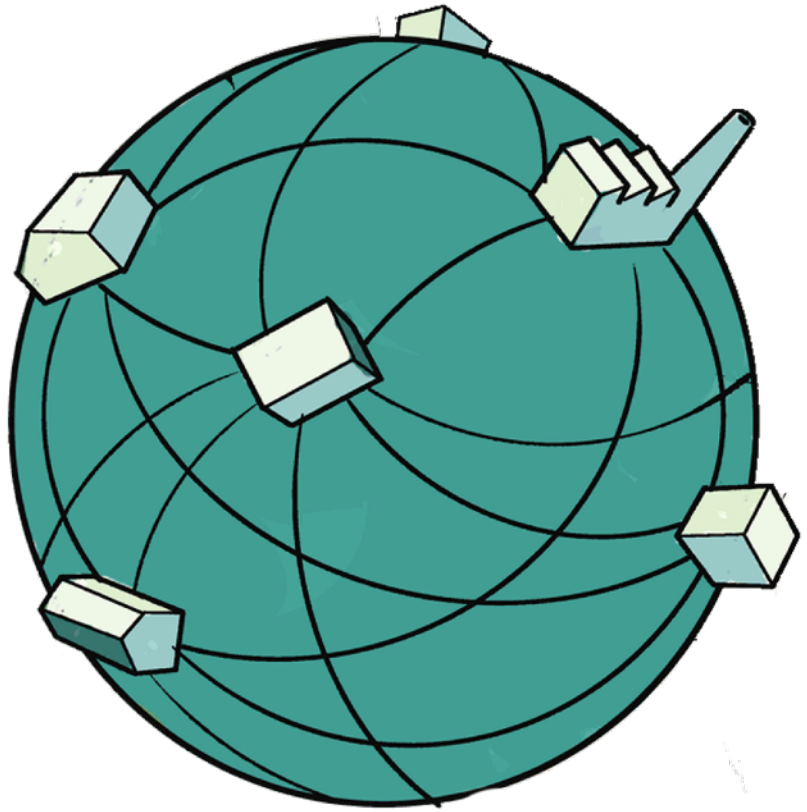
whatever is light is global, whatever is heavy is local



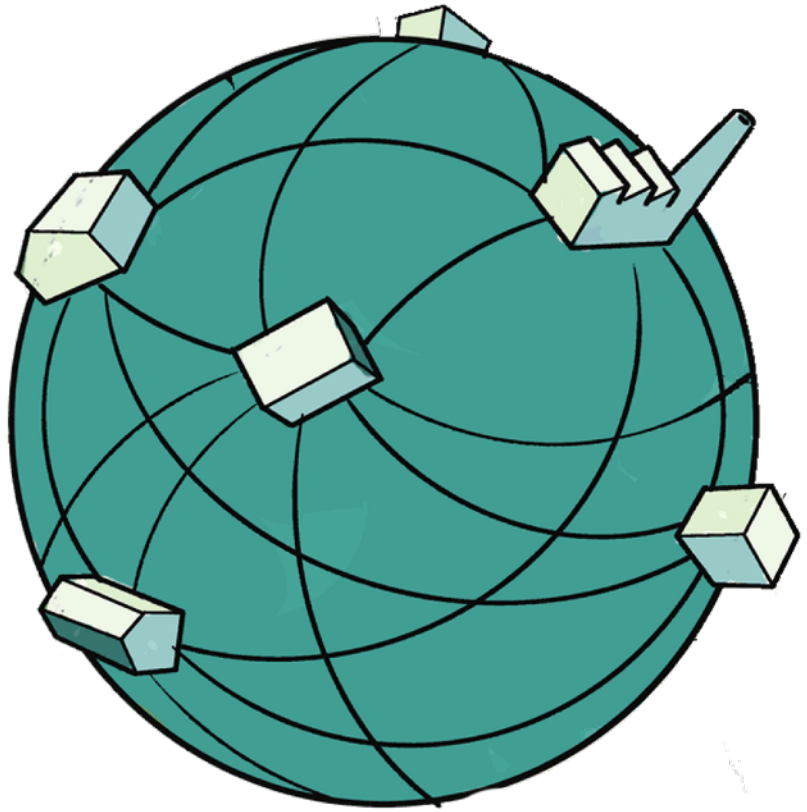
beyond global vs local
beyond low-tech vs hi-tech



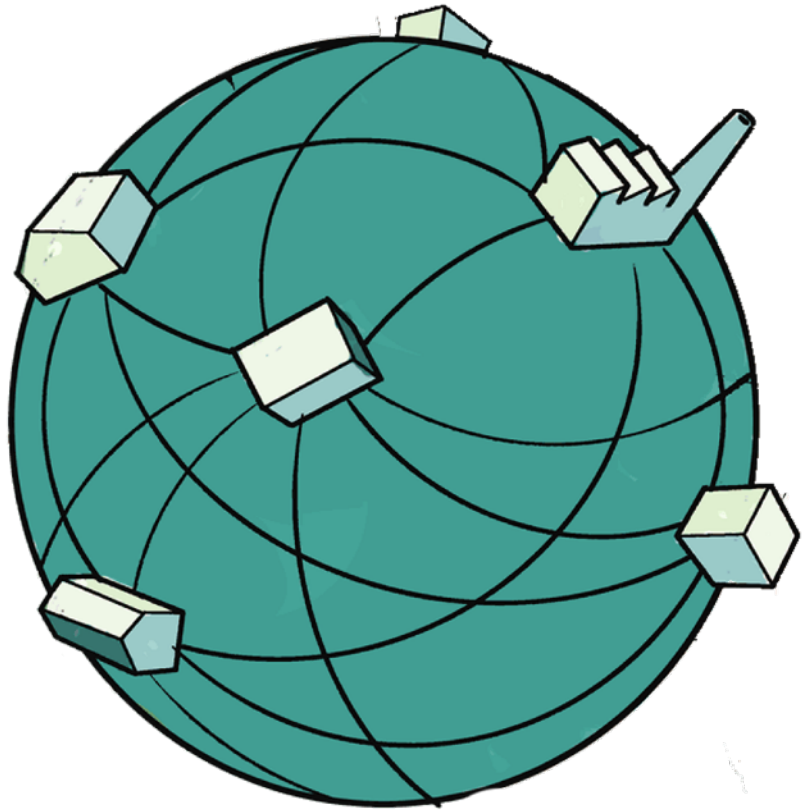
beyond global vs local
beyond low-tech vs hi-tech
synthesise the best aspects because of openness



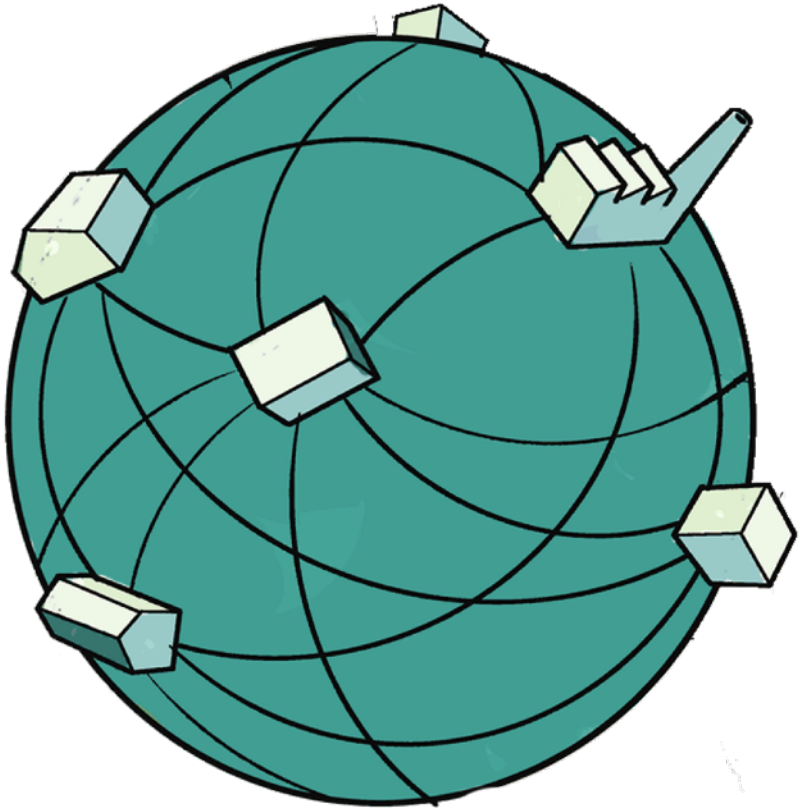
beyond global vs local
beyond low-tech vs hi-tech

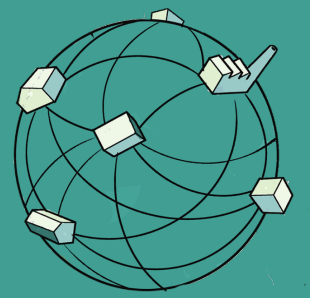


cosmolocal
mid-tech

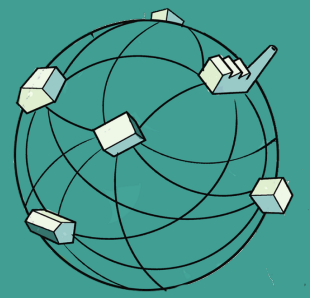


Four dynamics for sustainability

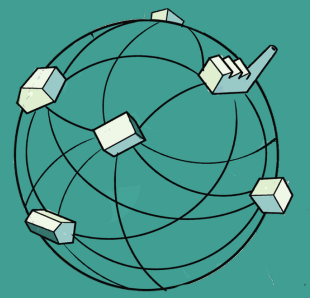




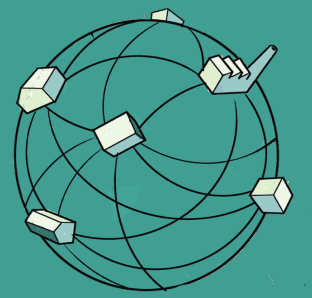
1. Design for sustainability



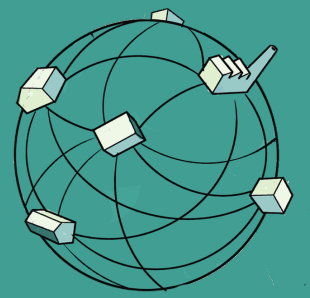
1. Design for sustainability (products designed to last as long as possible)



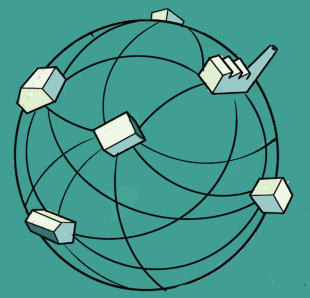
1. Design for sustainability
2. On-demand manufacturing



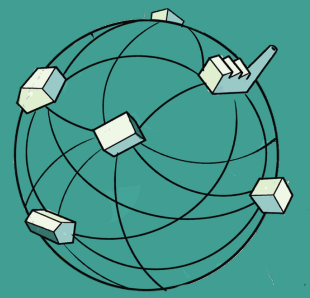
1. Design for sustainability
2. On-demand manufacturing (materials tend to travel less)



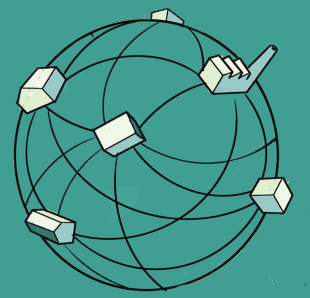
1. Design for sustainability
2. On-demand manufacturing
3. Sharing productive resources



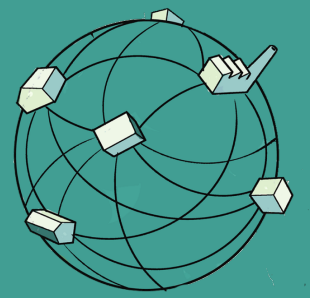
1. Design for sustainability
2. On-demand manufacturing
3. Sharing productive resources (infrastructures are optimised)



1. Design for sustainability
2. On-demand manufacturing
3. Sharing productive resources
4. Inclusive governance

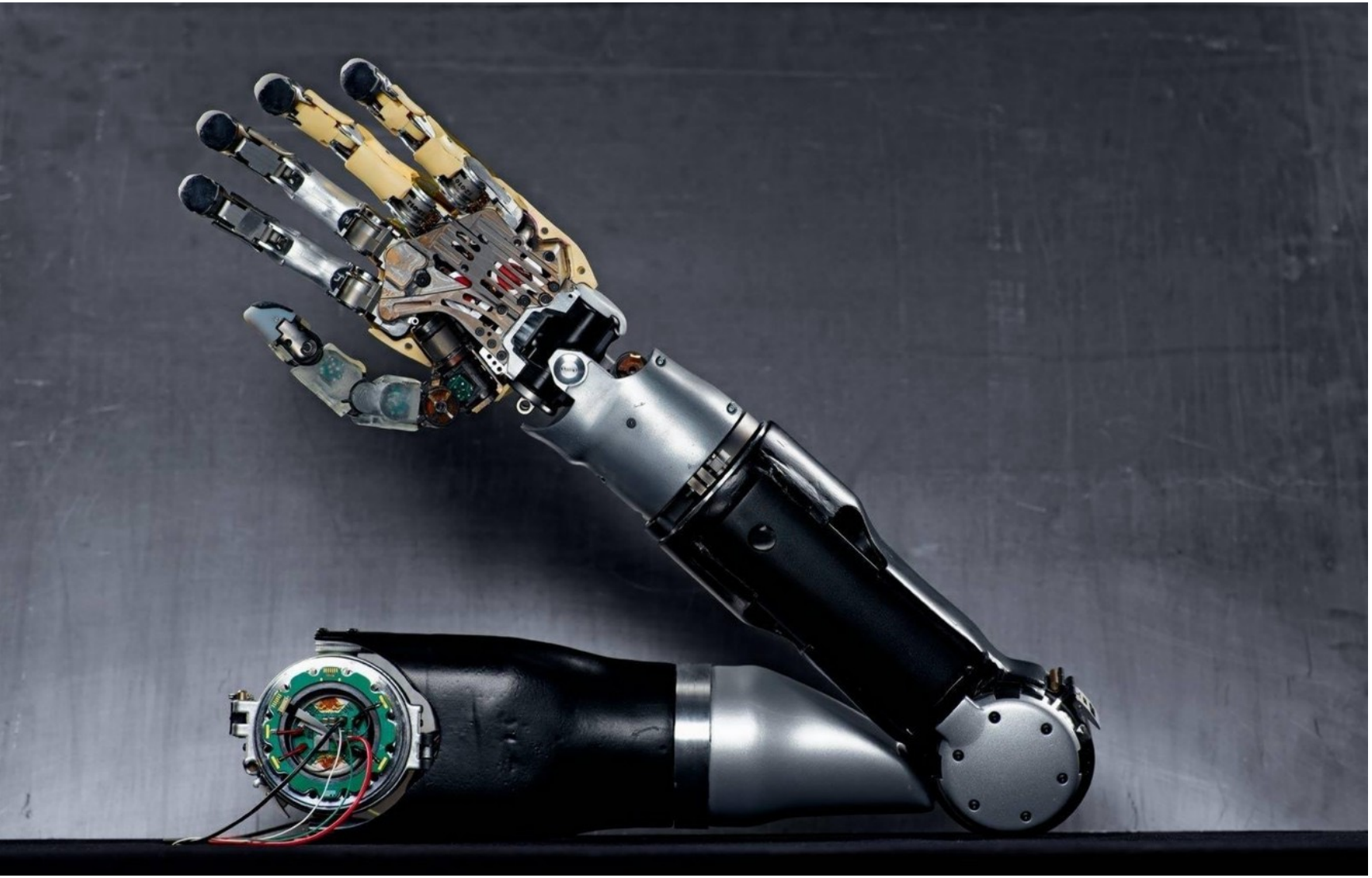


1. Design for sustainability
2. On-demand manufacturing
3. Sharing productive resources
4. Inclusive governance (participant-defined value systems)



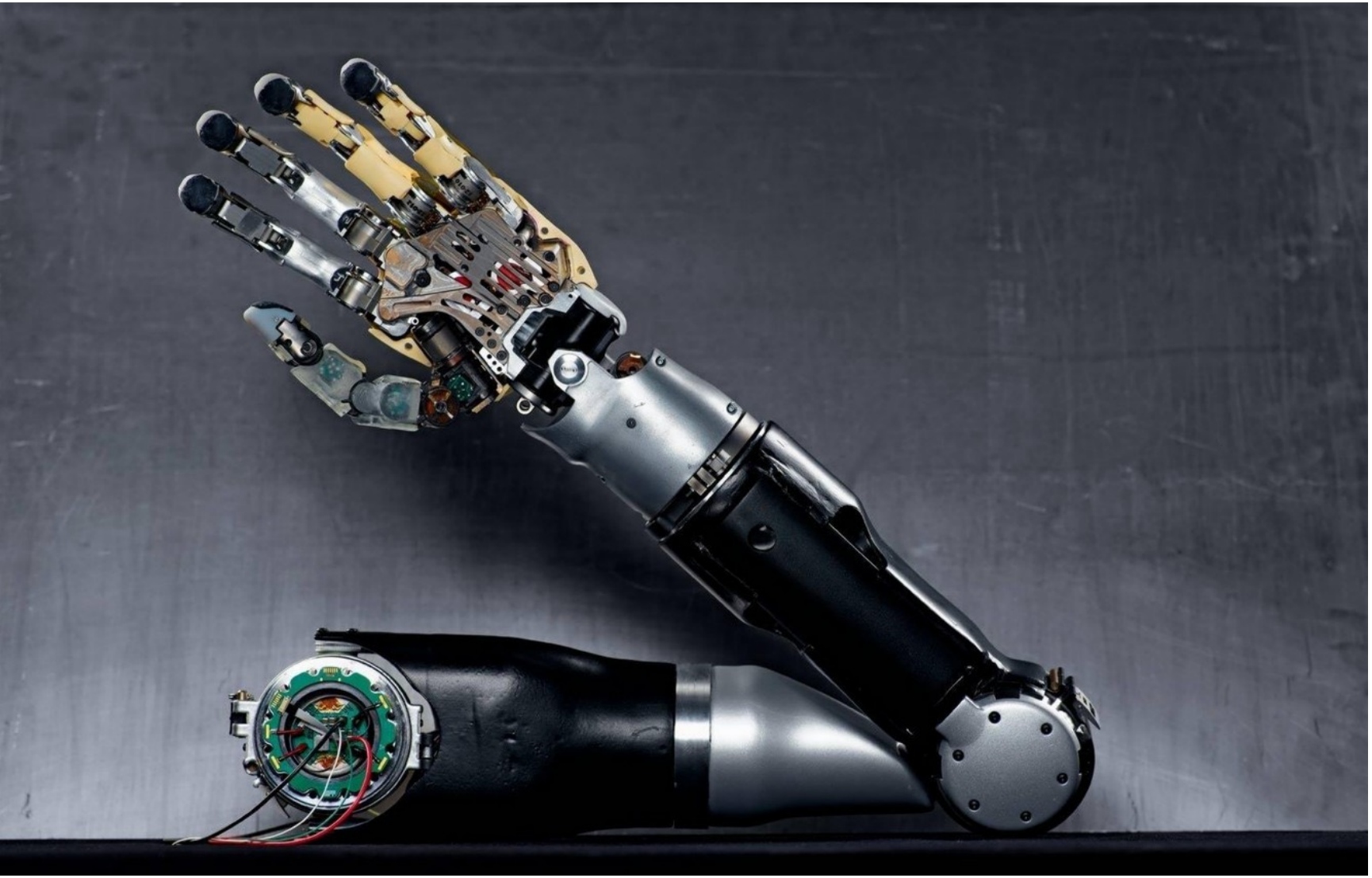
1. Design for sustainability
2. On-demand manufacturing
3. Sharing productive resources
4. Inclusive governance


Let’s discuss it!



hi-tech

low-tech



hi-tech

mid-tech

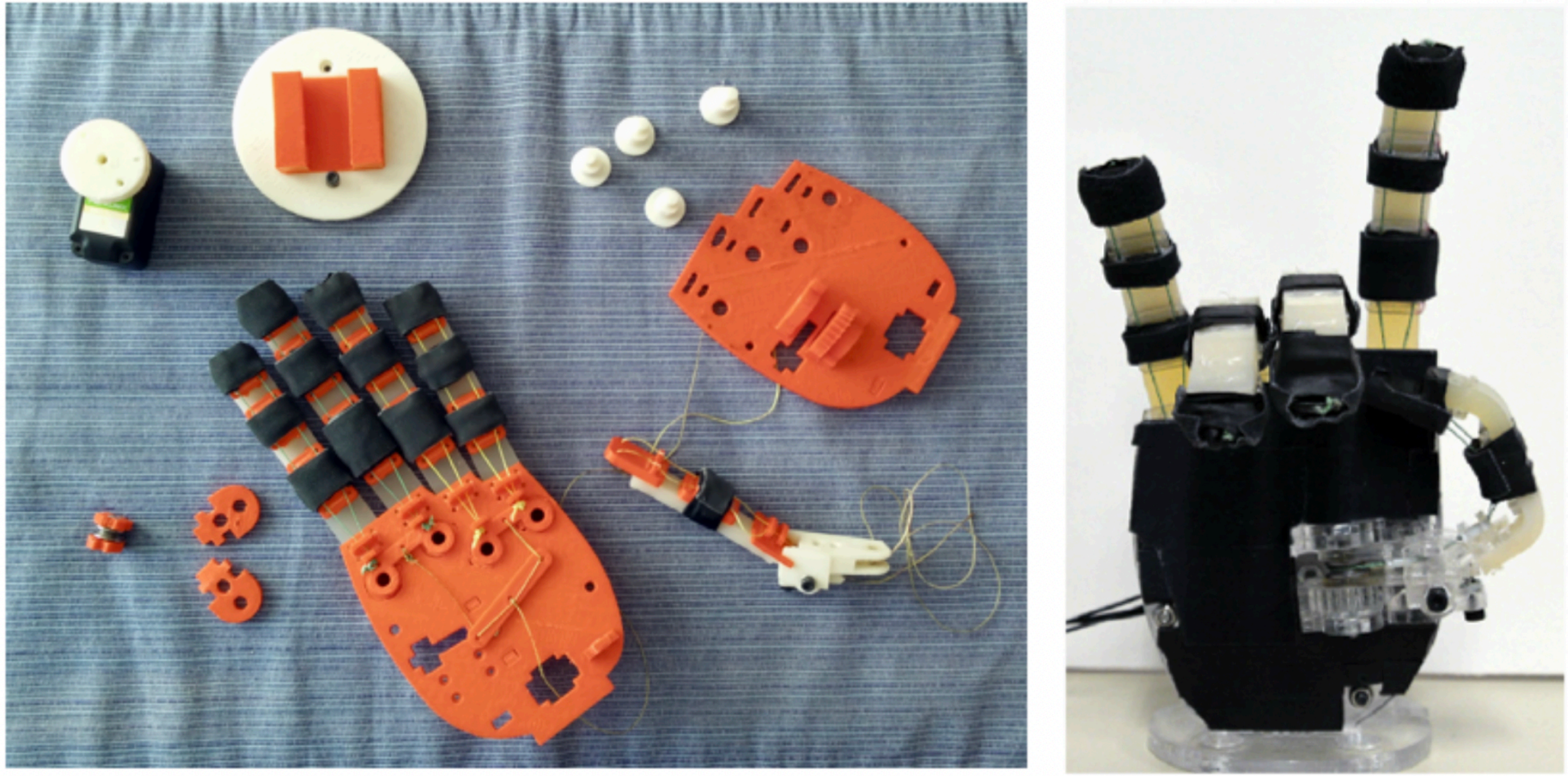


Figure 1. The first version of the OpenBionics prosthetic hand. The left subfigure presents the motor and the 3D printed and silicone parts needed to assemble the prosthesis. The right subfigure presents an assembled prosthesis fabricated with acrylic parts that are laser cut.

Figure 2. The OpenBionics body-powered partial hand prosthesis (left subfigure) and wearable exoskeleton glove (right subfigure).